



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,776	04/13/2006	Masahiro Yoshioka	0760-0353PUS1	3792

2292 7590 01/14/2010
BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

PAK, HANNAH J

ART UNIT	PAPER NUMBER
----------	--------------

1796

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

01/14/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Art Unit: 1796

The applicant's arguments filed 12/28/2009 are fully considered but are not found persuasive for the following reasons:

(A)

Applicant's arguments: Tsukamoto '985 does not disclose or suggest the requirements as instantly recited in the claims, which include "the minimum exposure energy required as photo-curing is not more than 60 mJ/cm²" and "the transmittance of i-ray through the resin black matrix is more than 0.2% when the OD value is 2.0" (see Page 10 of the Applicants' Remarks).

Examiner's Response: As mentioned in the previous action, Tsukamoto '985 teach forming the black composition comprising the same components as those claimed, including titanium nitride oxide, a resin and a solvent. Moreover, both the black composition of Tsukamoto '985 and the applicants' black composition were prepared by similar methods involving; 1) reacting the same 1 gamma-butyrolactone solvent (3825 g), pyromellitic dianhydride (149.6 g), benzophenone tetracarboxylic dianhydride (225.5 g), and bis-3-aminopropyl tetramethyl siloxane (17.4 g) at 60 degrees Celsius for three hours to obtain polyamic acid solution; 2) used homogenizer for N-methyl 2-pyrrolidone and 30methl03-methoxy butyl acetate with 100 g of glass bead, and 3) filtration removed the glass bead after distributed processing for 30 minutes at 7000 rpm (Compare Page 25, lines 1-25 of the instant specification and Paragraph 34 of Tsukamoto '985). In other words, Tsukamoto '985's product and process for preparing the same appear to be identical or substantially identical to the claimed product and

Art Unit: 1796

applicants' disclose process. As indicated in *In re Best*, 562 F.2d 1252, 1255 n.4, 195 USPQ 430, 433 n.4 (CCPA 1977),

“Where applicant claims a composition in terms of a function, property or Characteristic and the composition of the prior art is the same as that of the claim but the function is not explicitly disclosed by the reference, the examiner may make a rejection under both 35 U.S.C. 102 and 103, expressed as a 102/103 rejection. “There is nothing inconsistent in concurrent rejections for obviousness under 35 U.S.C. 103 and for anticipation under 35 U.S.C. 102.”

Unless the applicants can show that the product taught by Tsukamoto '985 does not possess the properties, such as those claimed, there is no patentable distinction between the claimed and prior art's black composition.

(B)

Applicants' arguments: (1) Tsukamoto '985 fails to disclose or suggest the advantages achieved by the present invention, which include (2) the surprising effect of the transmittance of i-ray is improved while maintaining the light shading property of the film (see Pages 10-12 of the Applicants' Remarks). (3) The presence of titanium nitride oxide as a light shading agent is somewhat surprising as shown on page 19 of their specification for support. As a result, in addition to high OD value and good adhesion, a resin matrix having vertical edge portions may be obtained with the present invention. (4) The applicants also submitted a declaration as evidence.

Examiner's Response: (1) The reference is not required to teach the same advantages achieved by the present invention since it is not required by the claims and also, as long as some motivation or suggestion to combine the references is provided by the prior art taken as a whole, the law does not require that the reference to be

Art Unit: 1796

combined for the reasons contemplated by the inventor; (2) and (4). The applicants' arguments directed to alleged unexpected results do not overcome the prima facie case of obviousness established in the record. While it is true that a showing of unexpected results can rebut any inference of obviousness established by the prior art of record, the applicants have the burden of showing that the claimed invention as whole imparts such unexpected results. The applicants do not point to any averment in the specification regarding unexpected results in the request for reconsideration, see *MPEP* § 716.02. Moreover, the applicants have not shown why the limited showing in their declaration is commensurate in scope with the degree of protection sought by the very broad claims of the instant application, see *MPEP* § 716.02. For instance, while the example in declaration is limited to a specific solvent, e.g. gamma-butyrolactone, and specific resin reacted at a specific temperature for a particular amount of time, the claims are not so limited. The claims broadly recite a resin and a solvent, which can include any and all types of resins and solvents. Accordingly, the applicants fail to rebut the prima facie case of obviousness established in the record.

(3) The explanation made on page 19 of the present specification is merely conclusory statements and cannot take place of objective evidence, see *MPEP* § 2149. Page 19 of the present specification simply states that their black composition has advantageous properties, including high OD value and good adhesion but this page in the instant specification is not supported by any objective evidence. The applicants further disclose on page 19, lines 15-20 of their specification, that "although the mechanism thereof has not yet been clarified, it is presumed that the radical generated by the irradiation with

Art Unit: 1796

light diffuse in the lower portion....” Implicit from this disclose is that even their own mechanism in achieving these advantageous features is uncertain.

(C)

Applicant’s arguments: The composition of Tsukamoto ‘985 does not satisfy Equations (3) and (4) (see Page 11 of the Applicants’ Remarks).

Examiner’s Response: As mentioned in the previous action, Tsukamoto ‘985 x-ray intensity ratio R having the formula below (Paragraphs 9 and 11-12):

$$R = I_3 / \{I_3 + 1.8 \times (I_1 + 1.8 \times I_2)\};$$

wherein R is 0.28 or more, I_1 represents the maximum diffraction line intensity of the titanate acid nitrides when the angle of diffraction 2 theta, determined by using a X line source CuK alpha rays, is 25-26 degrees, I_2 represents the maximum diffraction line intensity of the titanate acid nitrides when the angle of diffraction 2 theta is 27-28 degrees, and I_3 represents the maximum diffraction intensity of the titanate acid nitrides when the angle of diffraction 2 theta is 36-38 degrees. As is apparent from the above, R corresponds to the claimed R_1 and embraces a value inclusive of the claimed R_1 value. I_3 is identical to the claimed I_3 . I_1 and I_2 values, therefore, necessarily overlap with the claimed I_1 and I_2 values, i.e., the claimed R_2 value, to arrive at the R value of 0.28 or more, see *MPEP* § 2144.05: *Overlapping Ranges*. Thus, composition of Tsukamoto ‘985 does satisfy the claimed equations, unless the applicants prove otherwise.

Art Unit: 1796

Applicants' arguments: Tsukamoto '895 does not disclose selecting an appropriate titanium nitride oxide component in order to satisfy Equations (3) and (4) (see Page 11 of the Applicant's Remarks).

Examiner's Response: The claims require broadly using a titanium nitride oxide component. The specific titanium nitride component disclosed by the applicants is not required to be taught in the prior art. Moreover, the prior art broadly teaches using a titanium nitride oxide component as required by the claims.

(D)

Applicant's arguments: Hedaya '492 does not account for the deficiencies of the primary reference (see Page 11 of the Applicants' Remarks).

Examiner's Response: While Hedaya '492 does not disclose all the features of the present claimed invention, it used as a teaching reference, and therefore it is not necessary for this secondary reference to contain all the features of the presently claimed invention. Rather, this reference is used to teach the siloxane compound, and in combination with the other reference, disclose the presently claimed invention.

/Hannah Pak/

Examiner, Art Unit 1796

/Vasu Jagannathan/
Supervisory Patent Examiner, Art Unit 1796